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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,123	11/14/2006	Bong-Hyun Kim	0057-0001	3005

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EXAMINER	
PINKNEY, DAWAYNE	

ART UNIT	PAPER NUMBER
2873	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,123	KIM, BONG-HYUN	
	Examiner	Art Unit	
	DAWAYNE A. PINKNEY	2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 February 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08/21/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 08/21/2006 has been considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Lashkari et al. (US 6, 089, 716).

Regarding **claim 1**, Lashkari discloses, a picture system for ophthalmic operation comprising:

a near-infrared microscope (Figs. 1-3) for irradiating near-infrared ray emitted from a light source (Column 5, lines 20-26, Column 5, lines 51-56, Column 6, lines 5-13, Column 7, lines 46-51, and 145 of Fig. 2) to an affected part (Fig. 3) through an objective lens (170 of Fig. 3), and transmitting near-infrared images formed by the objective lens (170 of Fig. 3) to a first and a second ocular lenses (295, 295' of Fig. 3);

an image acquisition apparatus for converting near-infrared images transmitted to the first and the second ocular lenses into a first and a second electrical image signals for output (Column 9, lines 49-56, Column 11, lines 40-49, and 270, 270' of Fig. 3); and

a display apparatus for receiving the first and the second image signals, and outputting them in three-dimensions (Column 3, lines 18-34, Column 9, lines 57-65, Column 10, lines 64-67, Column 11, lines 34-37, and 285, 285', 290 of Fig. 3).

Regarding **claim 2**, Lashkari discloses, the picture system for ophthalmic operation according to claim 1, wherein the near-infrared microscope further comprises an image transmission unit for transmitting near-infrared images that are reflected by the affected part to the first and the second ocular lenses respectively through optical paths different from each other (230 of Fig. 3).

Regarding **claim 3**, Lashkari discloses, the picture system for ophthalmic operation according to claim 2, wherein the near-infrared microscope further comprises a near-infrared filter for passing only signals having wavelength in near-infrared region among the rays emitted from the light source (Column 9, lines 21-43, 155, 275, 275' of Fig. 2).

Regarding **claim 4**, Lashkari discloses, the picture system for ophthalmic operation according to claim 3, wherein a visible light reflection filter for reflecting visible light is jointed at the front surface of the near-infrared filter (Column 9, lines 21-43, 155, 275, 275' of Fig. 2).

Regarding **claim 5**, Lashkari discloses, the picture system for ophthalmic operation according to claim 3, wherein the near-infrared filter is provided in a filter selecting unit, and a plurality of transmission filters for each wavelength, including the near-infrared filter and the

visible light filter, are provided in the filter selecting unit (Column 9, lines 21-43, 155, 275, 275' of Fig. 2).

Regarding **claim 6**, Lashkari discloses, the picture system for ophthalmic operation according to claim 2, wherein the near-infrared microscope further comprises an optical cable for transmitting near-infrared ray output from the light source (310 of Fig. 9), and a guide reflecting mirror for guiding the near-infrared ray transmitted by the optical cable to the objective lens (160 of Fig. 2).

Regarding **claim 7**, Lashkari discloses, the picture system for ophthalmic operation according to claim 1, wherein the light source comprises a near-infrared LED, and the affected part is irradiated by near-infrared ray output from the near-infrared LED (Column 5, lines 20-26, Column 5, lines 51-56, Column 6, lines 5-13, Column 7, lines 46-51, 145 of Fig. 2).

Regarding **claim 8**, Lashkari discloses, the picture system for ophthalmic operation according to claim 1, wherein the image acquisition apparatus comprises:

a body formed with a first and a second inserting grooves in which the first and the second ocular lenses are inserted and fixed (125, and 125' of Fig. 3);

sensors for sensing near-infrared images output from the first and the second ocular lenses and converting them into the first and the second image signals (270, 270' of Fig. 3); and

relay lenses for transmitting near-infrared images output from the first and the second ocular lenses to the sensors (265, 265' of Fig. 3).

Regarding **claim 9**, Lashkari discloses, the picture system for ophthalmic operation according to claim 8, wherein the sensors are charge-coupled devices (CCD) (Column 9, lines 49-56, Column 11, lines 40-49, and 270, 270' of Fig. 3).

Regarding **claim 10**, Lashkari discloses, the picture system for ophthalmic operation according to claim 1, wherein the display apparatus includes a plurality of display units, and further includes an image distributor for distributing and transmitting a first and a second image signals output from the image acquisition apparatus to a plurality of the display units (285, 285', and 290 of Fig. 3).

Regarding **claim 11**, Lashkari discloses, the picture system for ophthalmic operation according to claim 10, wherein the display apparatus is a HMD (Head Mounted Display) or a three-dimensional monitor (Column 4, line 67, Column 5, lines 1-14, Figs. 1-3).

Regarding **claim 12**, Lashkari discloses, the picture system for ophthalmic operation according to claim 1, further including a control/storage apparatus for setting and controlling display environments of the display apparatus, and storing images displayed by the display apparatus (Column 11, lines 7-12).

Regarding **claim 13**, Lashkari discloses, the picture system for ophthalmic operation according to claim 12, wherein the control/storage apparatus creates database for retrieval and reproduction of the stored images (Column 11, lines 7-12).

Regarding **claim 14**, Lashkari discloses, the picture system for ophthalmic operation according to claim 1, wherein the image acquisition apparatus is detachably combined with the first and the second ocular lenses (Figs. 1-3).

Regarding **claim 15**, Lashkari discloses, an image acquisition/output apparatus including a main body and a supporting member for supporting the main body, the main body comprising:

an objective lens arranged opposite to an affected part (170 of Fig. 3);

a beam irradiation unit for irradiating beam having a predetermined wavelength bandwidth to the affected part (145 of Fig. 3); and

an image acquisition unit for converting the images formed by the objective lens into electrical image signals and outputting them (270, 270' of Fig. 3),

wherein the beam irradiation unit includes at least two filters having different light sources and transmission bandwidths (Column 9, lines 21-43, and 155, 275, 275' of Fig. 2).

Regarding **claim 16**, Lashkari discloses, the image acquisition/output apparatus according to claim 15, wherein the main body further includes an image transmission unit for transmitting the images formed by the objective lens to the image acquisition unit (230 of Fig. 3), and a relay lens for connecting the image transmission unit to the image acquisition unit (265, 265' of Fig. 3).

Regarding **claim 17**, Lashkari discloses, the image acquisition/output apparatus according to claim 15, wherein the beam irradiation unit includes a near-infrared filter for transmitting the wavelengths corresponding to near-infrared region only (Column 9, lines 21-43, and 155, 275, 275' of Fig. 2).

Regarding **claim 18**, Lashkari discloses, the image acquisition apparatus according to claim 17, wherein a visible light reflection filter for reflecting visible light is jointed at the front surface of the near-infrared filter (Column 9, lines 21-43, and 155, 275, 275' of Fig. 2).

Regarding **claim 19**, Lashkari discloses, a picture system for ophthalmic operation comprising: an image acquisition/output apparatus according to claim 15 (270, 270' of Fig. 3); and a display apparatus for outputting three-dimensional images using the image signals

outputted from the image acquisition/output apparatus (Column 3, lines 18-34, Column 9, lines 57-65, Column 10, lines 64-67, Column 11, lines 34-37, and 285, 285', 290 of Fig. 3).

Regarding **claim 20**, Lashkari discloses, the picture system for ophthalmic operation according to claim 19, wherein the display apparatus includes a plurality of display units, and further includes an image distributor for distributing and transmitting the image signals to a plurality of the display units (Column 11, lines 7-12, and 285, 285', 290 of Fig. 3).

Regarding **claim 21**, Lashkari discloses, a picture system for ophthalmic operation comprising:

a near-infrared microscope (Figs. 1-3) for irradiating near-infrared ray to an affected part by guiding it to an objective lens (170 of Fig. 3), and transmitting near-infrared images formed by the objective lens to a left and a right ocular lenses (295, 295' of Fig. 3);

a beam splitter arranged between the objective lens and the left and the right ocular lenses for dividing the left and the right near-infrared images respectively to transmit them to one side and the other side (230 of Fig. 3);

a first adaptor connected to one end of the beam splitter for receiving and outputting the left side near-infrared images (Fig. 3);

a second adaptor connected to the other end of the beam splitter for receiving and outputting the right side near-infrared images (Fig. 3);

a first image acquisition apparatus for outputting the left side near-infrared images output from the first adaptor as electrical left side image signals (270 of Fig. 3);

a second image acquisition apparatus for outputting the right side near-infrared images output from the second adaptor as electrical right side image signals (270' of Fig. 3); and

a plurality of display apparatuses for receiving the left and the right image signals and outputting them in three-dimensional images respectively (Column 3, lines 18-34, Column 9, lines 57-65, Column 10, lines 64-67, Column 11, lines 34-37, and 285, 285', 290 of Fig. 3).

Regarding **claim 22**, Lashkari discloses, the picture system for ophthalmic operation according to claim 21, further comprising an image distributor for distributing and transmitting the left side image data and the right side image data output from the first and the second image acquisition apparatuses to a plurality of the display units (285, 285', 290 of Fig. 3), and a control/storage apparatus for setting and controlling display environments of the display apparatuses respectively, and storing images being displayed by the display apparatus (Column 11, lines 7-12).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cartlidge et al. (US 7 , 338, 168) teaches near-infrared microscope with an objective lens, first and second ocular lenses, an image acquisition apparatus, and a display.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAWAYNE A. PINKNEY whose telephone number is (571)270-1305. The examiner can normally be reached on Monday-Thurs. 8 a.m.- 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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03/26/2008